

IN THE UNITED STATES DISTRICT COURT

FOR THE NORTHERN DISTRICT OF CALIFORNIA

ATMEL CORPORATION, a Delaware
corporation; ATMEL SWITZERLAND, a
corporation; ATMEL FRANCE, a
corporation; ATMEL SARL, a
corporation,

Plaintiffs,

v.

AUTHENTEC, INC., a Delaware
corporation,

Defendant.

No. C 06-2138 CW
C 07-3331 CW

ORDER ON CLAIM
CONSTRUCTION AND
CROSS-MOTIONS FOR
SUMMARY JUDGMENT

Plaintiffs Atmel Corporation, Atmel Switzerland, Atmel France and Atmel SARL and Defendant Authentec, Inc. dispute the meaning of several terms and phrases used in U.S. Patent No. 6,289,114 (the '114 patent) and U.S. Patent No. 6,459,804 (the '804 patent). Plaintiffs and Defendant each ask the Court to adopt their proposed construction of the disputed terms and phrases. In addition, Plaintiffs move for partial summary judgment. Defendant opposes the motion, cross-moves for summary judgment and moves for an exceptional case finding. Plaintiffs oppose those motions. The

1 motions were heard on May 1, 2008. The Court has considered the
2 parties' papers and oral argument. The Court finds it unnecessary
3 to construe the disputed claim terms. Construing the claims as
4 Plaintiffs propose for the purpose of the motions, the Court denies
5 Plaintiffs' motion for partial summary judgment, grants Defendant's
6 motion for summary judgment and denies Defendant's motion for an
7 exceptional case finding.

8 BACKGROUND

9 Plaintiffs and Defendant are competitors that produce
10 biometric fingerprint sensors used to secure small electronic
11 devices. Plaintiffs argue that they invented semiconductor slide
12 sensors, which greatly reduce the size of the sensor surface
13 because such slide sensors can recreate the image of a fingerprint
14 by reassembling several smaller images or "slices" captured as the
15 finger slides over the sensor or the sensor slides over the finger.
16 Plaintiffs contend that, prior to their invention, fingerprint
17 sensors, including Defendant's, read an entire fingerprint that was
18 placed directly on the sensor surface (area sensors). Because the
19 sensor surface on an area sensor needs to be large enough to
20 accommodate an entire fingertip at once, such sensors are less
21 practical than slide sensors for small electronic devices such as
22 cell phones and PDAs. Plaintiffs allege that these inventions are
23 protected by the '114 and '804 patents, which claim a fingerprint-
24 reading system that

25 includes a fingerprint sensor having an active surface
26 sensitive to the pressure and temperature of a finger.
27 The surface area of this sensor is far smaller than
the surface area of the fingerprint to be read. The
reading is done when the sensor and the finger are in

1 contact and in a relative motion of sliding of the
2 sensor and the finger with respect to each other. The
3 system reconstitutes a complete image of the
fingerprint from the partial images given by the
sensor during this motion.

4 '114 and '804 patents Abstract.¹ The patents-in-suit propose a
5 sensor that "delivers only partial images of the complete
6 fingerprint" and provides that the "reconstruction of the complete
7 image of the fingerprints is obtained by the superimposition of
8 successive images given by the sensor during its relative shift
9 with respect to the finger." '114 patent, col. 3, ln. 31-35. The
10 patents disclose improvements over the prior art using optical
11 devices which were faulty because they could be tricked with a
12 photograph or model of a finger and because of their size and high
13 production costs. Id. at col. 1, ln. 27-42.

14 The patents also disclose improvements over prior art using
15 capacitive, piezoelectric and pyroelectric sensors.² These sensors
16 only work with a live finger but also have a variety of drawbacks.
17 For example, the surface area of the sensor still has to be the
18 size of the fingerprint to be read. Because these have to be so
19 large and are integrated directly into the very costly
20 semiconductor substrate, the cost of production is high. Id. at
21 col. 2, ln. 20-22. Moreover, the signal created by these sensors
22

23 ¹Because the '804 patent is a continuation claiming a method
24 of using the apparatus claimed in the '114 patent, the text of the
25 two is identical except for the claims. However, the pagination
and line numbers vary minimally. All citations to text in the
patents, except for the claims, will be to the '114 patent.

26 ²Capacitive sensors measure electrical charge; piezoelectric
27 sensors measure pressure; and pyroelectric sensors measure
temperature.

1 only exists for as long as the finger is in contact with the
2 surface. Because there are variations of physical effects such as
3 the pressure being applied on the sensor, the sensor is constantly
4 producing images and requires the recognition system "to analyze
5 all the images . . . in order to find the one most appropriate for
6 authentication." Id. at col. 2, ln. 37-40. Other systems using
7 "excitation external to the sensor" such as "the sending of an
8 energy beam in the form of microwaves" had been found to
9 "complicate the system and increase its volume and cost." Id. at
10 col. 2, ln. 42-44.

11 The invention disclosed in the patents-in-suit seeks to
12 overcome these drawbacks. First, because the sensor and the finger
13 slide relative to one another, the sensor need not be as large as
14 the fingerprint to be read. Second, because the finger moves
15 across the sensor "successively with a speed that is in the same
16 ranges as or faster than the time constant characteristic of the
17 sensitive layer of the sensor," the sensor "provides a sequence of
18 images with a constant quality of contrast." Id. at col. 3, ln. 3-
19 7. Further, "inasmuch as the relative speed of shift of the finger
20 with respect to the sensor does not exceed a certain maximum value,
21 an image given by the sensor at a given instant will at least
22 partially overlap the following one." Id. at col. 3, ln. 18-21.
23 Therefore, the "complete image of the fingerprint could be
24 reconstituted by a specific processing system." Id. at col. 3, ln.
25 21-23. The '114 patent contains apparatus claims and the '804
26 patent claims a method of using the apparatus claimed in the '114
27 patent.

1 Plaintiffs argue that several of Defendant's EntrePad sensors
2 (AES products) infringe claims 1, 2, 4, 7-10, 12, 14 and 17-19 of
3 the '114 patent and claims 1, 5, 6, 10, 11, 15 and 16 of the '804
4 patent. Defendant's AES products utilize radio-frequency sensing
5 technology to "read" the fingerprint patterns on the live layer of
6 skin beneath the finger's dry outer surface layer. The AES product
7 works when a person presses her finger against the drive ring,
8 which injects a small radio-frequency signal into the finger. The
9 radio frequency is then read by the detection matrix, which
10 "sense[s] the strength of the electric field which is established
11 by the boundary condition of the ridge valley pattern inside itself
12 and the actual metal layers inside the . . . over-all package."
13 McKenzie Decl., Ex. K at 230.

14 DISCUSSION

15 I. Claim Construction

16 In their joint claim construction statement, the parties
17 identified thirty-one terms for construction. They agree on the
18 construction for three of those terms and submit the remainder to
19 the Court. Ordinarily, the Court must first construe the claims of
20 the patent before considering questions of infringement. See
21 SmithKline Beecham Corp. v. Apotex Corp., 403 F.3d 1331, 1339-40
22 (Fed. Cir. 2005). However, as Defendant argues, even if the Court
23 adopts Plaintiffs' proposed constructions in full, Defendant's
24 products do not infringe the patents-in-suit. Therefore, for
25 purposes of deciding Defendant's motion for summary judgment, the
26 Court adopts Plaintiffs' proposed claim construction. Further, for
27 purposes of deciding Defendant's motion, the Court need rely on

1 only four terms, the same four that Plaintiffs identify as the
2 "most important": "sensor," "sensing surface," "sensing elements"
3 and "contact sensitive elements." These terms all appear in Claim
4 1 of the '114 patent.

5 Claim 1 of the '114 patent provides, "A fingerprint reading
6 system comprising: means for reading a fingerprint including a
7 sensor having a sensing surface coupled to a matrix of contact
8 sensitive elements for generating a series of partial images of a
9 finger, placed in direct contact with said sensing surface, from
10 relative sliding contact between said sensing surface and said
11 finger, said sensing surface having a surface area smaller than a
12 surface area of said fingerprint to be read; and means for
13 reconstituting a total image of the fingerprint from said partial
14 images."

15 According to Plaintiffs, a "sensor" is "Any device that can
16 detect or measure something," and a "sensing surface" is "A surface
17 of the sensor that detects finger contact wherein the sensor is
18 integrated onto a semiconductor substrate and is not an optical
19 sensor." The "sensing elements" are "Two or more component parts
20 that are responsive to contact between a finger and the sensing
21 surface of the sensor wherein the sensor is integrated onto a
22 semiconductor substrate and is not an optical sensor." Finally,
23 "contact sensitive elements" are "Two or more component parts that
24 are responsive to contact between a finger and the sensing surface
25 of the sensor wherein the sensor is integrated onto a semiconductor
26 substrate and is not an optical sensor."

1 II. Summary Judgment

2 Summary judgment is properly granted when no genuine and
3 disputed issues of material fact remain, and when, viewing the
4 evidence most favorably to the non-moving party, the movant is
5 clearly entitled to prevail as a matter of law. Fed. R. Civ.
6 P. 56; Celotex Corp. v. Catrett, 477 U.S. 317, 322-23 (1986);
7 Eisenberg v. Ins. Co. of N. Am., 815 F.2d 1285, 1288-89 (9th Cir.
8 1987).

9 The moving party bears the burden of showing that there is no
10 material factual dispute. Therefore, the court must regard as true
11 the opposing party's evidence, if supported by affidavits or other
12 evidentiary material. Celotex, 477 U.S. at 324; Eisenberg, 815
13 F.2d at 1289. The court must draw all reasonable inferences in
14 favor of the party against whom summary judgment is sought.
15 Matsushita Elec. Indus. Co. v. Zenith Radio Corp., 475 U.S. 574,
16 587 (1986); Intel Corp. v. Hartford Accident & Indem. Co., 952 F.2d
17 1551, 1558 (9th Cir. 1991).

18 Material facts which would preclude entry of summary judgment
19 are those which, under applicable substantive law, may affect the
20 outcome of the case. The substantive law will identify which facts
21 are material. Anderson v. Liberty Lobby, Inc., 477 U.S. 242, 248
22 (1986).

23 Where the moving party does not bear the burden of proof on an
24 issue at trial, the moving party may discharge its burden of
25 production by either of two methods. Nissan Fire & Marine Ins.
26 Co., Ltd., v. Fritz Cos., Inc., 210 F.3d 1099, 1106 (9th Cir.
27 2000).

1 The moving party may produce evidence negating an
2 essential element of the nonmoving party's case, or,
3 after suitable discovery, the moving party may show that
4 the nonmoving party does not have enough evidence of an
5 essential element of its claim or defense to carry its
6 ultimate burden of persuasion at trial.

7 Id.

8 If the moving party discharges its burden by showing an
9 absence of evidence to support an essential element of a claim or
10 defense, it is not required to produce evidence showing the absence
11 of a material fact on such issues, or to support its motion with
12 evidence negating the non-moving party's claim. Id.; see also
13 Lujan v. Nat'l Wildlife Fed'n, 497 U.S. 871, 885 (1990); Bhan v.
14 NME Hosps., Inc., 929 F.2d 1404, 1409 (9th Cir. 1991). If the
15 moving party shows an absence of evidence to support the non-moving
16 party's case, the burden then shifts to the non-moving party to
17 produce "specific evidence, through affidavits or admissible
18 discovery material, to show that the dispute exists." Bhan, 929
19 F.2d at 1409.

20 If the moving party discharges its burden by negating an
21 essential element of the non-moving party's claim or defense, it
22 must produce affirmative evidence of such negation. Nissan, 210
23 F.3d at 1105. If the moving party produces such evidence, the
24 burden then shifts to the non-moving party to produce specific
25 evidence to show that a dispute of material fact exists. Id.

26 If the moving party does not meet its initial burden of
27 production by either method, the non-moving party is under no
28 obligation to offer any evidence in support of its opposition. Id.
This is true even though the non-moving party bears the ultimate

1 burden of persuasion at trial. Id. at 1107.

2 Where the moving party bears the burden of proof on an issue
3 at trial, it must, in order to discharge its burden of showing that
4 no genuine issue of material fact remains, make a prima facie
5 showing in support of its position on that issue. UA Local 343 v.
6 Nor-Cal Plumbing, Inc., 48 F.3d 1465, 1471 (9th Cir. 1994). That
7 is, the moving party must present evidence that, if uncontroverted
8 at trial, would entitle it to prevail on that issue. Id.; see also
9 Int'l Shortstop, Inc. v. Rally's, Inc., 939 F.2d 1257, 1264-65 (5th
10 Cir. 1991). Once it has done so, the non-moving party must set
11 forth specific facts controverting the moving party's prima facie
12 case. UA Local 343, 48 F.3d at 1471. The non-moving party's
13 "burden of contradicting [the moving party's] evidence is not
14 negligible." Id. This standard does not change merely because
15 resolution of the relevant issue is "highly fact specific." Id.

16 A. Defendant's Motion for Summary Judgment

17 Defendant argues that, even using Plaintiffs' construction of
18 the relevant terms, the accused products do not infringe the
19 patents-in-suit because the products do not require "direct
20 contact" between the user's finger and the "sensing surface" as
21 provided for in claims 1 and 17 of the '414 patent. Rather,
22 Defendant argues, its products require the user to contact the
23 drive ring, which injects a radio-frequency signal into the finger,
24 thereby creating an electric field captured by the detection matrix
25 and used to image the fingerprint.

26 Plaintiffs do not dispute this description of Defendant's
27 products. See Plaintiffs' Responsive Brief at 10. Instead,

1 Plaintiffs contend that the "sensing surface" includes both the
2 detection matrix and the drive ring. Plaintiffs argue that,
3 because an individual must make contact with the drive ring to use
4 the sensor, Defendant's products require "direct contact" between
5 the user's finger and the "sensing surface." However, as described
6 above, Plaintiffs' own construction of "sensing surface" is "A
7 surface of the sensor that detects finger contact wherein the
8 sensor is integrated onto a semiconductor substrate and is not an
9 optical sensor."

10 Plaintiffs contend that the drive ring "detects finger
11 contact" and is therefore part of the sensing surface. However,
12 this argument is based on Plaintiffs' assertion that Defendant's
13 "sensor specifications indicate that the sensor captures images
14 once a 'finger has been detected on the sensor.'" Plaintiffs'
15 Responsive Brief at 10 (quoting Product Specification for the
16 AES4000 Fingerprint Sensor). As Defendant points out, the quoted
17 specification is for a product that is not accused of infringing,
18 a product in which the drive ring is used as a power-up mechanism.
19 This power-up feature is not included in the accused products.
20 Moreover, as Defendant points out, Plaintiffs' infringement
21 contentions include only the detection matrix as the part of the
22 accused products that comprises the "sensing surface coupled to a
23 matrix of several lines of sensing elements" identified in claim 17
24 of the '114 patent. See DeMory Reply Decl., Ex. 39. Plaintiffs'
25 infringement contentions do not mention the drive ring. See id.

26 Further, the "undisputed material facts" (UMFs) Plaintiffs
27 include in their opening brief make clear that the drive ring is

1 not part of their own construction of "sensing surface." UMF I
2 states, "The sensor device in the AES products includes both the
3 detection matrix and the drive ring." Plaintiffs' opening brief at
4 23. However, UMF E states, "The AES products have a sensor that
5 detects" and goes on to cite the specifications for the AES
6 products' detection matrices. Id. at 22. The fact that a "sensor
7 device" includes the drive ring does not necessarily mean that the
8 "sensing surface" includes the drive ring. Moreover, as Defendant
9 points out, the drive ring transmits a signal into the finger; it
10 does not detect any part of, or signal from, the finger.

11 The Court finds that the drive ring is not part of the
12 "sensing surface." Therefore Defendant's accused products do not
13 infringe independent claim 1 of the '114 patent, which requires
14 that the user's finger be "placed in direct contact with [the]
15 sensing surface." Because Defendant's products do not infringe
16 independent claim 1, they also do not infringe claims 2, 4, 7, 8,
17 9, 10, 12, or 14, which depend on claim 1. Independent claim 17 of
18 the '114 patent also requires "a finger placed in contact with
19 [the] sensing surface." Therefore, the accused products do not
20 infringe independent claim 17 or dependent claims 18 and 19 of the
21 '114 patent.

22 Moreover, Defendant asserts and Plaintiffs do not dispute that
23 the "'804 patent claims only a method of using an apparatus claimed
24 in the '114 patent." Defendant's opening brief at 4. Because
25 Defendant's products do not infringe the apparatus claimed in the
26 '114 patent, they cannot infringe the method of using that
27 apparatus claimed in the '804 patent.

1 III. Exceptional Case Finding

2 Defendant argues that it should be awarded reasonable
3 attorneys' fees under 35 U.S.C. § 285, which provides that in
4 exceptional patent cases courts "may award reasonable attorney fees
5 to the prevailing party." In Cambridge Products, Ltd. v. Penn
6 Nutrients, Inc., 962 F.2d 1048, 1050-51 (Fed. Cir. 1992), the court
7 found that the exceptional nature of the case must be established
8 by clear and convincing evidence, explaining that "exceptional
9 cases" are normally those involving bad faith litigation or fraud
10 or inequitable conduct by the patentee in procuring the patent.

11 Defendant contends that Plaintiffs engaged in misconduct
12 during litigation. In particular, Defendant contends that
13 Plaintiffs purposefully misrepresented the licensing history of the
14 patents-in-suit in their papers filed in opposition to Defendant's
15 motion to dismiss. Further, Defendant argues that, despite two
16 court orders to do so, Plaintiffs have wrongfully refused to
17 respond to written discovery and deposition questions regarding the
18 licenses. Because Magistrate Judge Laporte is more familiar with
19 the parties' conduct during discovery, the Court finds that she is
20 better equipped to evaluate Defendant's allegations of misconduct.
21 These allegations are the subject of Defendant's motion for
22 sanctions currently under submission before Magistrate Judge
23 Laporte.

24 Defendant also argues that the merits of the case warrant an
25 exceptional case finding. Even absent a finding of misconduct, a
26 prevailing party may be granted attorneys' fees if "(1) the
27 litigation is brought in subjective bad faith, and (2) the

1 litigation is objectively baseless." Brooks Furniture Mfg. v.
2 Dutailier Int'l, Inc., 393 F.3d 1378, 1381 (Fed. Cir. 2005).
3 Defendant argues that it is entitled to attorneys' fees because,
4 even accepting Plaintiffs' proposed claim construction, the accused
5 products do not infringe the patents-in-suit. Therefore, Defendant
6 contends that the litigation is objectively baseless. Plaintiffs
7 counter that they hired outside counsel to conduct an investigation
8 prior to filing this lawsuit. Although the deposition testimony
9 Plaintiffs file in support of their argument that they conducted a
10 reasonable investigation is notably vague, Defendant bears the
11 burden of establishing that Plaintiffs acted in subjective bad
12 faith. The only evidence Defendant cites in support of this
13 finding is an email by the inventor discussing the likelihood of
14 proving that other products not at issue in this case infringe the
15 patents-in-suit. This is not clear and convincing evidence that
16 Plaintiffs brought this suit in bad faith.

17 CONCLUSION

18 For the foregoing reasons, the Court accepts Plaintiffs'
19 construction of the relevant terms for purposes of deciding
20 Defendant's motion for summary judgment. The Court DENIES
21 Plaintiffs' motion for partial summary judgment (Docket No. 398),
22 GRANTS Defendant's motion for summary judgment and DENIES its
23 motion for an exceptional case finding (Docket No. 430).³ Once the
24 motions pending before the Magistrate Judge have been resolved, the

25
26 ³Plaintiffs' motion to strike the McWilliams declaration
27 (Docket No. 462) is DENIED as moot. The Court did not consider the
28 declaration in deciding these motions.

1 Clerk shall enter judgment for Defendant and close the file.
2 Defendant shall recover its costs from Plaintiffs jointly and
3 severally.

4 IT IS SO ORDERED.

5
6 Dated: 5/5/08



CLAUDIA WILKEN
United States District Judge